

### DETAILED ACTION

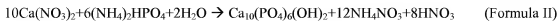
1. This Office action is in response to the Amendment filed 05/19/2010. Claims 1-13 and 20 have been cancelled. Claims 14-19 are now pending.

#### *Allowable Subject Matter*

2. Claims 14-19 are allowed.
3. The following is a statement of reasons for the indication of allowable subject matter:

The present claims are allowed over the closest references: Kumta et al. (US7247288).

Kumta et al. disclose hydroxyapatite was chemically synthesized using  $\text{CaCl}_2$  and  $\text{Na}_3\text{PO}_4$  in deionized water. Stock reagent solutions were first prepared, including: 2 M calcium solution (column 18, lines 28 and 29), buffered saline (...1.5 mM  $\text{Na}_3\text{PO}_4$ ...) (column 18, lines 31 and 32). The calcium solution, 20 mMoles, containing plasmid DNA was mixed with  $\text{Na}_3\text{PO}_4$  solution, 1.5 mMoles, then incubated for either 4 or 12 hours at a pH of 7.5 and temperature of  $37^\circ\text{C}$  and the nanocrystalline hydroxyapatite was formed (column 18, lines 18 to 25). The solution was washed (column 18, lines 41-52). The resulting mixture can be air-dried or dried in vacuum to generate the polymeric structure containing the nanosized hydroxyapatite particles (column 22, lines 23- 29). The hydroxyapatite has Ca/P molar ration of 1.67 (column 1, line 29). Kumta et al. also disclose widely used aqueous colloidal precipitation reactions to synthesize hydroxyapatite are as follows:



Formula II indicates the use of ammonium phosphate.

However, Kumta et al. fails to teach or fairly suggest the **claimed method** for preparing the dispersions comprising the steps of: i) preparing a solution of calcium salts and adjusting the pH to a selected value of between 4 and 6; ii) adding a phosphate solution to the solution obtained in step i) over a period of time of between 30 minutes and 4 hours, so as to obtain a calcium to phosphorus molar ratio of between 1 and 2.5, wherein the pH is maintained constant at the selected value of between 4 and 6 until a calcium phosphate platelet dispersion is formed; iii) heat treating the dispersion obtained in step ii) at a temperature of between 50°C and 95°C; iv) washing the dispersion obtained in step iii); v) adding a dispersion agent to the dispersion obtained in step iv); vi) separating the colloidal dispersion obtained in step v); wherein in at least one of steps i) or ii), the solutions further comprise ammonium ions; and wherein at least one polymer which complexes calcium is added during step i) or ii).

There is no prior art of record, alone or in combination teach and fairly suggest the claimed method.

4. Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

### ***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Chun-Cheng Wang whose telephone number is (571)270-5459. The examiner can normally be reached on Monday to Friday w/alternate Friday off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Milton Cano can be reached on (571)272-1398. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Ling-Siu Choi/  
Primary Examiner, Art Unit 1796

/Chun-Cheng Wang/  
Examiner, Art Unit 1796

/CCW/